



As an ENERGY STAR® Partner, Panasonic has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

Operating Instructions

CD Stereo System

Model No. **SC-AK960**



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SUPPLIED ACCESSORIES

Please check and identify the supplied accessories.
Use numbers indicated in parentheses when asking for replacement parts. (As of July 2008)
To order accessories, refer to "Accessory Purchases" on page 20.

1 x AC power supply cord

(K2CB2CB00021)

1 x AM loop antenna

(N1DAAAA00001)

1 x Remote Control

(N2QAYB000189)

1 x FM indoor antenna

(RSA0007-L1)

2 x Remote control batteries

Before connecting, operating or adjusting this product, please read the instructions completely.
Please keep this manual for future reference.

Operations in these instructions are described mainly using remote control, but you can perform the operations on the main unit if the controls are the same.
Your unit may not look exactly the same as illustrated.

La guía rápida en español se encuentra en la página 21 - 28.

If you have any questions contact
In the U.S.A.: 1-800-211-PANA (7262)

Dear customer

Thank you for purchasing this product.
For optimum performance and safety, please read these instructions carefully.

These operating instructions are applicable to the following system.

System	SC-AK960
Main unit	SA-AK960
Front speakers	SB-PF960
Surround speakers	SB-PS960
Subwoofer 1 (with buttons)	SB-WAK860
Subwoofer 2 (without buttons)	SB-WAK960

The model number and serial number of this product can be found on either the back or the bottom of the unit.
Please note them in the space provided below and keep for future reference.

MODEL NUMBER SC-AK960

SERIAL NUMBER _____

User memo:

DATE OF PURCHASE _____

DEALER NAME _____

DEALER ADDRESS _____

TELEPHONE NUMBER _____

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE,

- **DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.**
- **USE ONLY THE RECOMMENDED ACCESSORIES.**
- **DO NOT REMOVE THE COVER (OR BACK); THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

CAUTION!


THIS PRODUCT UTILIZES A LASER. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

CAUTION!


DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.

The socket outlet shall be installed near the equipment and easily accessible. The mains plug of the power supply cord shall remain readily operable.


To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from AC receptacle.




CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SCREWS. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

 The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

 The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

FCC Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Declaration of conformity

Trade Name: Panasonic

Model No: SC-AK960

Responsible Party:

Panasonic Corporation of North America
One Panasonic Way
Secaucus, NJ 07094

Support Contact:

Panasonic Consumer Electronic Company
Telephone No: 1-800-211-7262

IMPORTANT SAFETY INSTRUCTIONS

Read these operating instructions carefully before using the unit. Follow the safety instructions on the unit and the applicable safety instructions listed below. Keep these operating instructions handy for future reference.

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



Product Service

1. **Damage requiring service** – The unit should be serviced by qualified service personnel if:
 - (a) The AC power supply cord or the plug has been damaged; or
 - (b) Objects or liquids have gotten into the unit; or
 - (c) The unit has been exposed to rain; or
 - (d) The unit does not operate normally or exhibits a marked change in performance; or
 - (e) The unit has been dropped or the cabinet damaged.
2. **Servicing** – Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.
3. **Replacement parts** – When parts need replacing ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.
4. **Safety check** – After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

The servicer will require all components to service your system. Therefore, should service ever be necessary, be sure to bring the entire system.

Product information

For product information or assistance with product operation: Refer to "Customer Services Directory" on page 20.

Listening caution



Selecting fine audio equipment such as the unit you've just purchased is only the start of your musical enjoyment. Now it's time to consider how you can maximize the fun and excitement your equipment offers. This manufacturer and the Electronic Industries Association's Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion—and, most importantly, without affecting your sensitive hearing.

We recommend that you avoid prolonged exposure to excessive noise.

Sound can be deceiving. Over time your hearing "comfort level" adapts to higher volumes of sound. So what sounds "normal" can actually be loud and harmful to your hearing. Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

To establish a safe level:

- Start your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.

Once you have established a comfortable sound level:

- Set the dial and leave it there.

Taking a minute to do this now will help to prevent hearing damage or loss in the future. After all, we want you listening for a lifetime.

-If you see this symbol-

Information on Disposal in other Countries outside the European Union



This symbol is only valid in the European Union. If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

Handling of the disc trays and discs

Not doing the following will cause damage to the unit.

Removing the power plug

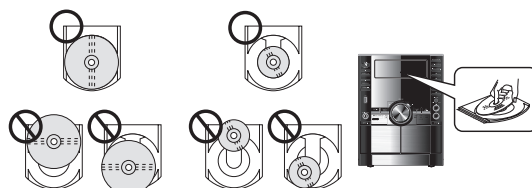
- Press [⏻/I, POWER] to turn off the unit and remove the power plug only after all the displays have disappeared.

Tray caution



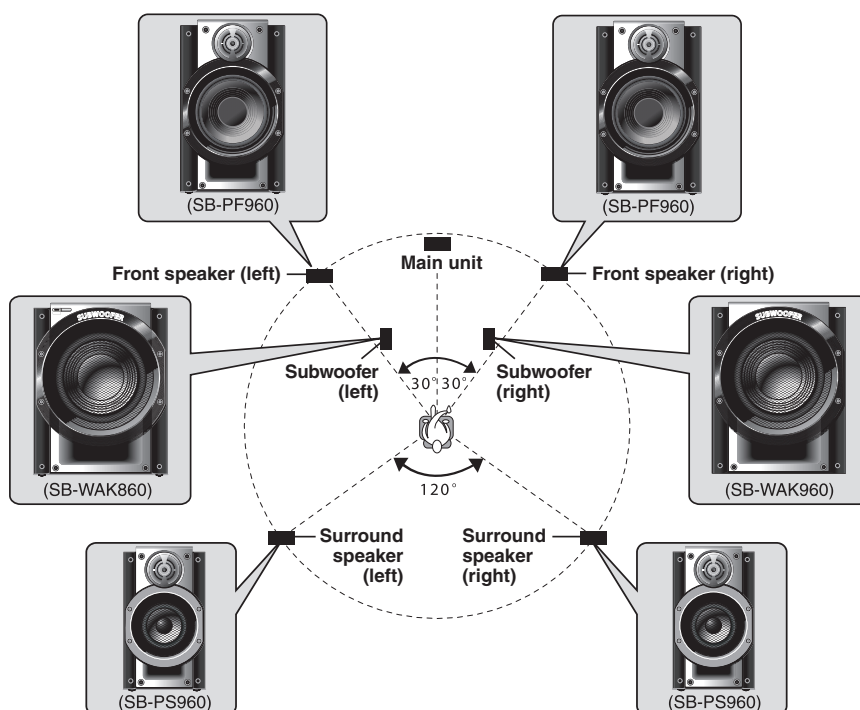
- Always press [▲, OPEN/CLOSE] to insert or remove a disc.
- Do not push or pull out the tray by hand as this will cause an accident.

Inserting a disc



- Place the disc correctly label-up as shown in the diagram.
- Insert one disc into the tray.

Placement of speakers



Front speakers

Speakers are designed identically so that no left or right channel orientation is necessary.

Surround speakers

Place on the side of or slightly behind the seating area, higher than ear level.

Subwoofer(s)

Place on the floor or a sturdy shelf to reduce vibration. Leave 10 cm (3¹⁵/₁₆") at the rear for ventilation.

Use only the supplied speakers

- Using other speakers can damage the unit and sound quality will be negatively affected.
- Set the speakers up on an even surface to prevent them from falling. Take proper precautions to prevent the speakers from falling if you cannot set them up on an even surface.

Note:

- Keep your speakers at least 10mm (13/32") away from the system for proper ventilation.
- You cannot take the front net off the speakers.
- These speakers do not have magnetic shielding. Do not place them near televisions, personal computers or other devices easily influenced by magnetism.
- You can damage your speakers and shorten their useful life if you play sound at high levels over extended periods.
- Reduce the volume in the following cases to avoid damage.
 - When playing distorted sound.
 - When adjusting the sound quality.
 - When turning the unit on or off.



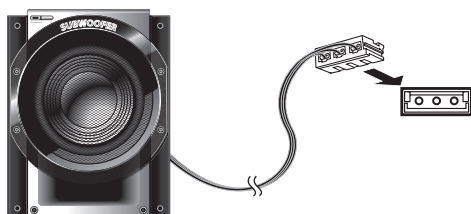
Caution

- Use the speakers only with the recommended system. Failure to do so can damage the amplifier and speakers, and can cause fire. Consult a qualified service person if damage occurs or if a sudden change in performance is apparent.
- Do not attach these speakers to walls or ceilings.

Getting started

Making the connections

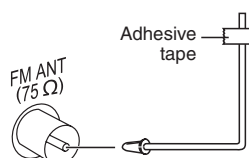
Connect the subwoofer to the main unit.



(SB-WAK860)

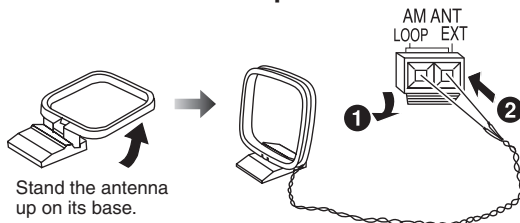
Please refer to "Boosting the subwoofer" on page 15 for more information on subwoofer operation.

Connect the FM indoor antenna.



Tape the antenna where reception is best.

Connect the AM loop antenna.



Stand the antenna up on its base.

Please refer to "Connecting to other external unit" on page 15 for more information on AUX connection.

To household AC outlet

IMPORTANT

Connect the AC power supply cord only after all other connections have been made.

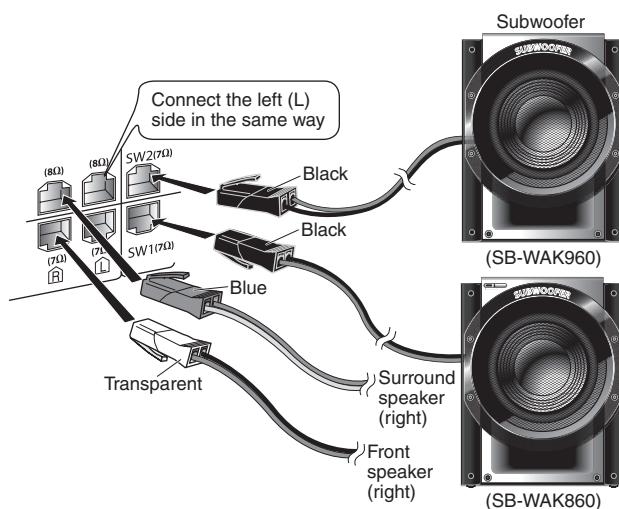
Connect the AC power supply cord.

The included AC power supply cord is for use with this unit only. Do not use it with other equipment.

Conserving power

The unit consumes approx. 0.2 W even when it is turned off with [⏻/I, POWER]. To save power when the unit is not to be used for a long time, unplug it from the household AC outlet. Remember to reset the radio stations and any other memory items before using the unit again.

Connect the speaker cords.



Getting started (continued)

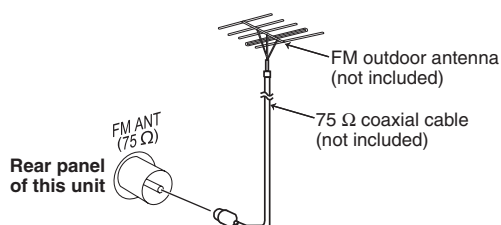
Optional antenna connections

Use outdoor antenna if radio reception is poor.

Note:

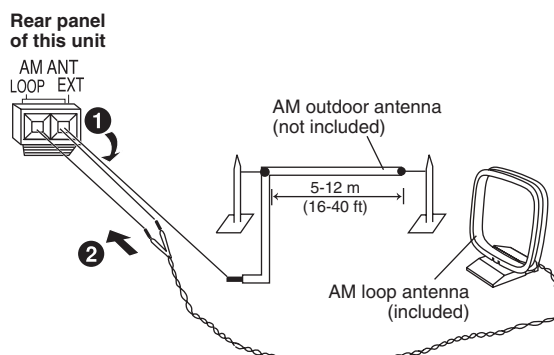
Disconnect the outdoor antenna when the unit is not in use. Do not use the outdoor antenna during a lightning storm.

FM outdoor antenna



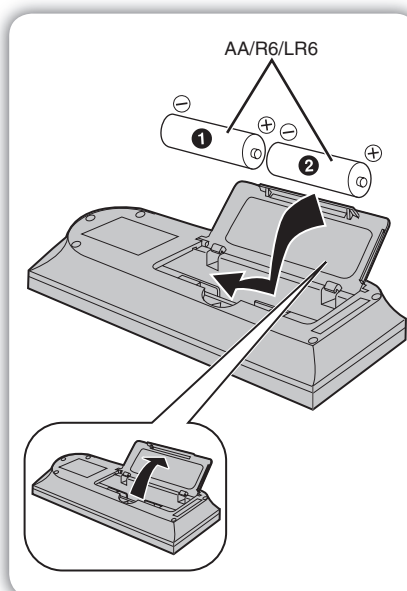
- Disconnect the FM indoor antenna.
- The antenna should be installed by a competent technician.

AM outdoor antenna



- Run a piece of vinyl wire horizontally across a window or other convenient location.
- Leave the loop antenna connected.

Preparing the remote control



Batteries

- Insert so the poles (+ and -) match those in the remote control.
- Remove if the remote control is not going to be used for a long period of time. Store in a cool, dark place.
- Do not use rechargeable type batteries.
- Do not heat or expose to flame.
- Do not leave the battery(ies) in an automobile exposed to direct sunlight for a long period of time with doors and windows closed.
- Mishandling of batteries in the remote control can cause electrolyte leakage, which may cause a fire.

Do not:

- mix old and new batteries.
- use different types of batteries at the same time.
- take apart or short circuit;
- attempt to recharge alkaline or manganese batteries.
- use batteries if the covering has been peeled off.

Use

Aim at the remote control sensor, avoiding obstacles, at a maximum range of 7 m (23 feet) directly in front of the unit.
Refer to page 7 for the remote control sensor position.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

DEMO function



When the unit is first plugged in, a demonstration of its functions may be shown on the display.

If the demo setting is off, you can show a demonstration by selecting "DEMO ON".

Press and hold [■, STOP, -DEMO].

The display changes each time the button is held down.

NO DEMO (off) ↔ DEMO ON (on)

While in standby mode, select "NO DEMO" to reduce power consumption.

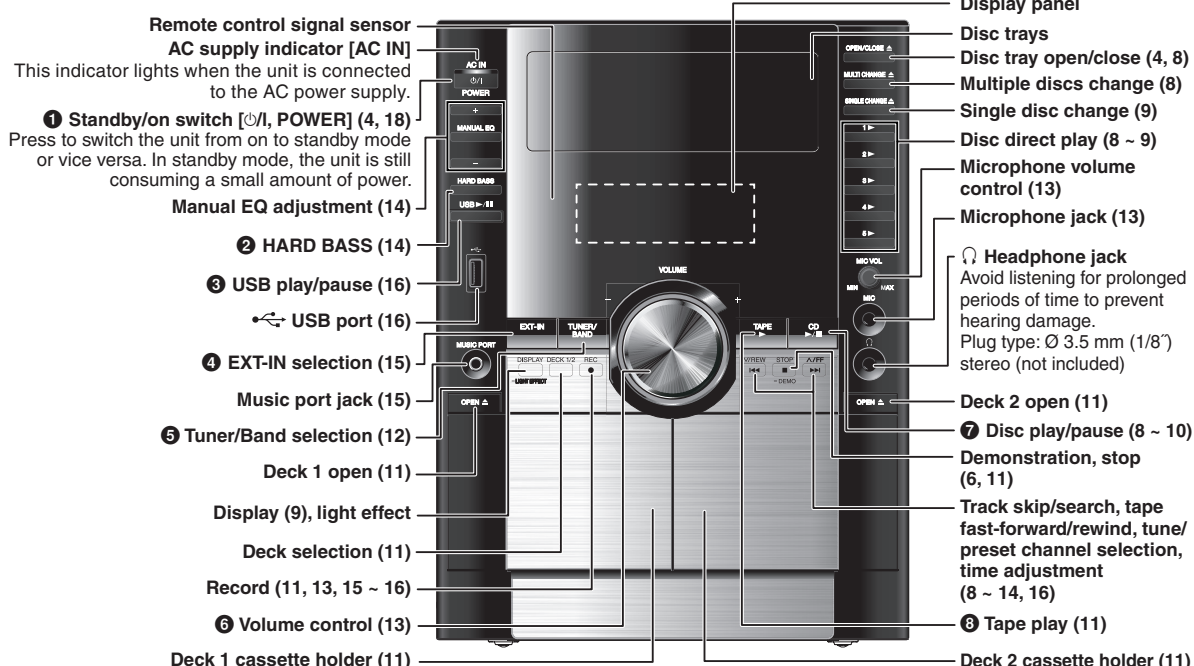
Note:

DEMO function cannot be turned on when DIMMER is on.

Overview of controls

Main unit

Refer to the numbers in parentheses for page reference.

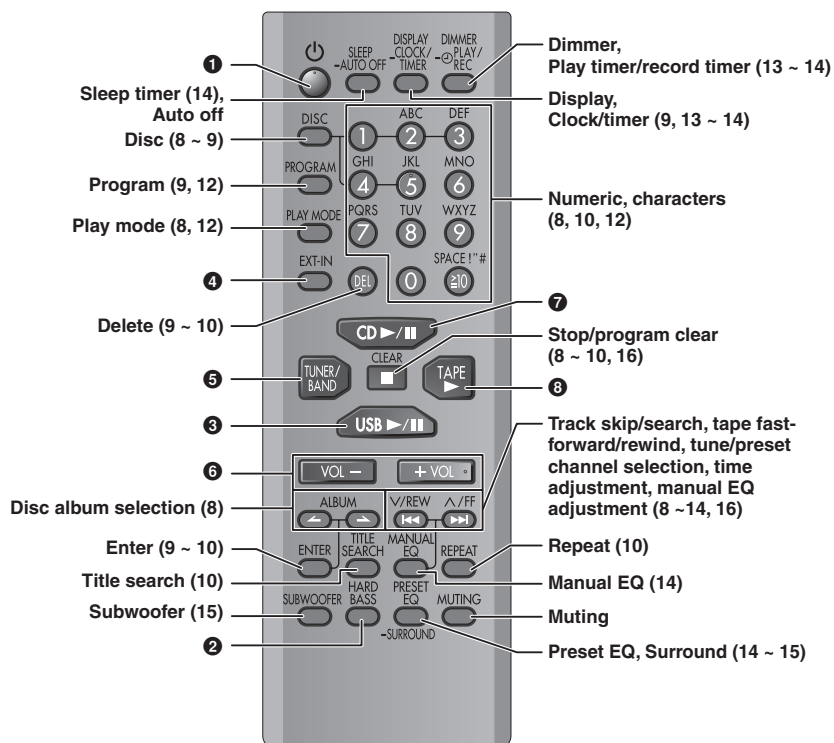


This function allows you to have light animation during **disc, tape or USB** play mode or when using **MIC**.

- Press and hold [–LIGHT EFFECT] to activate the function.
- Press and hold [–LIGHT EFFECT] again to cancel.

Remote control

Buttons such as **1** function the same as the controls on the main unit.



SLEEP –AUTO OFF
This auto off function allows you to turn off the unit in **disc, tape or USB** mode only after left unused for 10 minutes.

- Press and hold [–AUTO OFF] to activate the function.
- Press and hold [–AUTO OFF] again to cancel.
- The setting is maintained even if the unit is turned off.

DIMMER –PLAY/REC
To dim the display panel.

MUTING
To mute the sound.

- Press the button to activate.
- Press again or adjust the volume to cancel.

Discs

OPEN/CLOSE ▲



Basic play

1 Press [▲, OPEN/CLOSE] on the main unit to open the tray.
The unit turns on, load a disc in the current tray with the label facing up.
Press [▲, OPEN/CLOSE] to close the tray.

2 Press [▶/■, CD] to start play.
You can also press [DISC] and then [1] ~ [5] to select and play the other loaded discs.



Current disc indicator

To	Action
stop play CLEAR 	Press [■, CLEAR] during play. MP3 Display when in the stop mode: Example: "MP3" indicates the disc contains MP3 files.
pause play 	Press [▶/■, CD] during play. Press again to resume play.
skip album ALBUM 	MP3 Press [ALBUM (◀ or ▶)] to select the desired album during play or when in stop mode. Display when selecting in stop mode (example): Total number of albums Total number of tracks
skip tracks ◀/REW ▶/FF 	Press [◀◀, ◀/REW] or [▶▶, ▶/FF]. • During random play (➡ see right, "Play Mode function"), you cannot skip to tracks which have been played. MP3 During 1-ALBUM and 1-ALBUM RANDOM mode, track skipping can only be done within the current album.
search through tracks ◀/REW ▶/FF 	CD Press and hold [◀◀, ◀/REW] or [▶▶, ▶/FF] during play or pause to search. • During program play (➡ page 9), or random play (➡ see right, "Play Mode function"), you can search only within the track.

PLAY MODE



Play Mode function

CD **MP3**

You can listen to specific discs and tracks.

Preparation

Select and play your desired disc.

Press [PLAY MODE] to select the desired mode.

Mode	To play
1-DISC 1 DISC	one selected disc.
ALL-DISC ALL DISC	all loaded discs in succession from the selected disc to the final disc. Example: 4→5→1→2→3.
1-TRACK 1-TR	one selected track on the selected disc. CD Press the numeric buttons to select the track in the current disc. Play starts from the selected track.
1-ALBUM 1-ALB ALBUM 	MP3 Press [ALBUM (◀ or ▶)] to select the album. Press [◀◀, ◀/REW] or [▶▶, ▶/FF], then the numeric buttons to select the track in the current album. Play starts from the selected track.
1-DISC RANDOM 1 DISC RND	one selected disc randomly.
1-ALBUM RANDOM 1-ALB RND ALBUM 	MP3 all tracks in one selected album randomly. Press [ALBUM (◀ or ▶)] to select the album.
ALL-DISC RANDOM ALL DISC RND	all loaded discs randomly.

When playback ends

The current play mode will be retained in memory until it is changed even if the unit is turned off.

Note:

You cannot use program mode together with "Play Mode function".

MULTI CHANGE ▲

Changing multiple discs

By main unit only

1 Press [▲, MULTI CHANGE] to open the trays.

2 Press the button repeatedly to check and change multiple discs.

Note:

- The tray with a disc being played will not open.
- If the player is stopped, all trays will open. To close the remaining trays simultaneously, press [▲, OPEN/CLOSE].

SINGLE CHANGE

Changing a single disc (SINGLE CHANGE)

By main unit only

While one disc is playing, you can change the discs in other trays.

- 1 Press [▲, SINGLE CHANGE].
- 2 Press [▶, 1] ~ [▶, 5] to select the desired tray.
- 3 Change the disc.
- 4 Press [▲, SINGLE CHANGE] again to close the tray.

DISPLAY
CLOCK/
TIMER

Checking the track information

CD

MP3

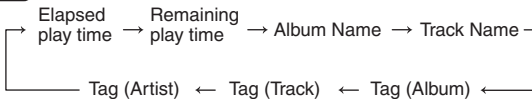
You can select a desired disc display mode.

Press [DISPLAY] during play or pause.

CD

Elapsed play time ↔ Remaining play time

MP3



Note:

CD

- When track number 25 or greater is playing, remaining play time display shows “--:--”.

MP3

- When a title is longer than 9 characters, it will scroll across the display. The scrolling will start after every 3 seconds.
- “NO TAG” is displayed if titles with tags have not been entered.
- Maximum number of displayable characters: approximately 32
- This unit can display album, track and artist name with MP3 ID3 tags (version 1.0 and 1.1).
- Titles containing text data that the unit does not support cannot be displayed.
- ID3 is a tag embedded in MP3 track to provide information about the track.
- Titles entered with 2-byte code cannot be displayed correctly on this unit.

Advanced play

PROGRAM

Program play

CD

MP3

This function allows you to program up to 24 tracks.

CD

- 1 Press [▶/II, CD] and then [■, CLEAR].
- 2 Press [PROGRAM].
“PGM” appears.
- 3 Press [DISC] and then [1] ~ [5] to select the disc.
- 4 Press the numeric buttons to select your desired track.
Repeat steps 3 to 4 to program other tracks.
- 5 Press [▶/II, CD] to start play.

MP3

- 1 Press [DISC] and then [1] ~ [5] to select the disc.
- 2 Press [■, CLEAR].
- 3 Press [PROGRAM].
- 4 Press [ALBUM (◀ or ▶)] to select your desired album.
To select an album directly, press the numeric buttons after pressing [ALBUM (◀ or ▶)].
- 5 Press [◀◀, √/REW] or [▶▶, ∧/FF] to select the track.
To select a track directly, press the numeric buttons after pressing [◀◀, √/REW] or [▶▶, ∧/FF].
- 6 Press [ENTER].
Repeat steps 4 to 6 to program other tracks.
- 7 Press [▶/II, CD] to start play.

For two-digit track, press [≥10] once then the two digits.
For three-digit track, press [≥10] twice then the three digits.

To	Action
cancel program mode	Press [PROGRAM] in the stop mode.
replay the program	Press [PROGRAM] then [▶/II, CD] in the stop mode.
add to the program	<p>CD</p> <p>Repeat steps 3 to 4 in the stop mode.</p> <p>MP3</p> <p>Repeat steps 4 to 6 in the stop mode.</p>
check program contents	<p>Press [◀◀, √/REW] or [▶▶, ∧/FF] when “PGM” is displayed in the stop mode.</p> <p>CD</p> <p>The track number, program order and disc number are displayed:</p> <div style="text-align: center;"> </div> <p>MP3</p> <p>The program order is displayed followed by the album number and track number.</p>
clear the last track	Press [DEL] in the stop mode.
clear all programmed tracks	Press [■, CLEAR] in the stop mode. “CLEAR ALL” is displayed. Within 5 seconds, press the button again to clear all tracks.

Note:

- You cannot program CD-DA together with MP3 tracks.
- The program memory is cleared when you change a disc or open the disc tray.
- You cannot program more than one disc.

MP3

Discs (continued)

REPEAT



Repeat play

CD MP3

You can repeat program play or other selected play mode.

Press [REPEAT].

"O" is displayed.

To cancel

Press [REPEAT] again.

"O" is cleared.

Note:

You can use repeat mode with "Program play" (→ page 9) and "Play Mode function" (→ page 8).

Advanced play (MP3 only)



Album /Track title search

This function enables you to search your desired album or track.

1 Press [▶/II, CD] and then [■, CLEAR].

2 For album title search, press [TITLE SEARCH] once.
For track title search, press [TITLE SEARCH] twice.

3 Press the numeric buttons repeatedly to select your desired character then press [▶/II, ^/FF] to key in the next character.

- You can enter up to 8 characters.
- To edit, press [◀/REW] or [▶/FF] to revise any characters.
- To delete, move the cursor over the character and then press [DEL].

Numbered Button	Characters
≥10	space ! " # \$ % & ' () * + , - . / : ; = ? _ `

- You can search for "<" or ">" by entering "(" or ")".
- The special characters will be displayed as below:

Characters	Main unit display	Characters	Main unit display
!	▽	,	/
"	〃	—	--
#	Ⅱ	.	·
\$	Ⅲ	/	/
%	¼	:	
&	Ⅳ	;	/
'	′	=	--
(⌈	?	□
)	⌋	—	—
*	※	`	
+	+		

- Some characters may not be displayed correctly due to the recording format/software used.

4 Press [ENTER].

Press [◀/REW] or [▶/FF] to search for previous or next match.

The matched title is displayed.

Album title search

Blinks to indicate album title search mode



Matched album title

Track title search

Matched track title



Blinks to indicate track title search mode

5 Press [▶/II, CD] to start play from the album/track found.

Note:

This function does not work during any random/program mode.

NOTE on CDs

- This unit can access up to 99 tracks.
- Choose disc with this mark.



- This unit can play MP3 files and CD-DA format audio CD-R/RW that have been finalized.
- It may not be able to play some CD-R/RW due to the condition of the recording.
- Do not use irregularly shaped disc.
- Do not use disc with labels and stickers that are coming off or with adhesive exuding from under labels and stickers.
- Do not attach extra labels or stickers on the disc.
- Do not write anything on the disc.

Using DualDiscs

The "CD" sides of DualDiscs do not meet the CD-DA standard so it may not be possible to play them on this unit.

NOTE on MP3

- Files are treated as tracks and folders are treated as albums.
- This unit can access up to 999 tracks, 255 albums and 20 sessions.
- Disc must conform to ISO9660 level 1 or 2 (except for extended formats).
- To play in a certain order, prefix the folder and file names with 3-digits numbers in the order you want to play them.

When "NOT MP3/ERROR1" appears on the display, an unsupported MP3 format is being played. The unit will skip that track and play the next one.

Limitations on MP3 play

- If you have recorded MP3 on the same disc as CD-DA, only the format recorded in the first session can be played.
- Some MP3s may not be played due to the condition of the disc or recording.
- Recordings will not necessarily be played in the order you recorded them.




Cassette tape – Play and record

The buttons described for “Cassette tape - Play and record” are mainly for the main unit unless indicated otherwise.



You can use either DECK 1 or DECK 2 for tape playback. Use normal position tapes. High position and metal position tapes can be played, but the unit will not be able to do full justice to the characteristics of these tapes.

- 1 Press [▶, TAPE].**
The unit turns on.
If a cassette was loaded, play starts automatically (One touch play).
- 2 Press [▲, OPEN] for DECK 1 or [▲, OPEN] for DECK 2 and insert the cassette.**
Insert with the side to be played facing towards you and the exposed tape facing down. Close the holder by hand.
- 3 Press [▶, TAPE] to start play.**

To	Action
stop tape playback  - DEMO	Press [■, STOP].
fast-forward and rewind 	Press [◀◀, V/REW] or [▶▶, A/FF].
select between loaded decks 	Press [DECK 1/2] (remote control : [PLAY MODE]).

- Note:**
- Tape playback is momentarily interrupted if you open the other deck.
 - Tapes exceeding 100 minutes are thin and can break or get caught in the mechanism.
 - Tape slack can get caught up in the mechanism and should be wound up before the tape is played.
 - Endless tapes can get caught up in the deck's moving parts if used incorrectly.





Selection of tapes for recording

Use normal position tapes. High position and metal position tapes can be used, but this unit will not be able to record or erase them correctly.




Preparation

Wind up the leader tape so recording can begin immediately.

- 1 Press [▲, OPEN] for DECK 2 and insert the cassette to be recorded.**
Insert with the side to be recorded facing towards you and the exposed tape facing down.
- 2 Select the source to be recorded.**
Radio recording:
Tune in the station (⇒ page 12).
Disc recording:
① Insert the disc(s) you want to record.
Press [▶/II, CD] and then [■, STOP].
② Prepare the desired disc recording mode.

To	Action
record programmed tracks	 Perform steps 2 to 4 in “Program play” (⇒ page 9).  Perform steps 3 to 6 in “Program play” (⇒ page 9).

By remote control only



- | | |
|------------------------------|---|
| record specific discs/tracks | 1) Press [DISC] and then [1] ~ [5] to select the disc.
Ensure disc is stopped.
2) Press [PLAY MODE] to select the desired mode (⇒ page 8).
3) 
For 1-ALBUM mode and 1-TRACK mode: Press [ALBUM (◀ or ▶)] to select the album.
 
For 1-TRACK mode: Press [◀◀, V/REW] or [▶▶, A/FF] to select the track. |
|------------------------------|---|

Tape-to-tape recording:

- ① Press [▶, TAPE] and then [■, STOP].
- ② Press [▲, OPEN] for DECK 1 and insert the cassette to record.

3 Press [●, REC] to start recording.

Other basic operations

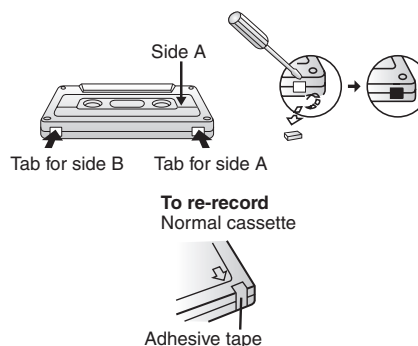
To	Action
stop recording  - DEMO	Press [■, STOP].
record on the other side of the tape 	Turn the cassette over and press [●, REC].
erase a recorded sound	1) Press [▶, TAPE] and then [■, STOP]. 2) Insert the recorded tape into DECK 2. Ensure there is no tape in DECK 1. 3) Press [●, REC].

Note:

- Changes to volume and sound adjustments do not affect recording.
- You can only use DECK 2 for tape recording.
- You cannot open DECK 1 while recording.
- You cannot fast-forward or rewind one deck while recording with the other.

Erasure prevention

The illustration shows how to remove the tabs to prevent recording. To record on the tape again, cover as shown.



FM/AM radio



Manual tuning

- 1 Press [TUNER/BAND] to select "FM" or "AM".
- 2 Press [PLAY MODE] to select "MANUAL".
- 3 Press [◀, √/REW] or [▶, ∧/FF] to select the frequency of the required station.
"ST" is displayed when a stereo FM broadcast is being received.

To tune automatically

Press and hold [◀, √/REW] or [▶, ∧/FF] until the frequency starts changing rapidly. The unit begins auto tuning, stopping when it finds a station.

- Auto tuning may be interrupted when there is excessive interference.
- To cancel auto tuning, press [◀, √/REW] or [▶, ∧/FF] once again.



To improve the sound quality

Press and hold [PLAY MODE] to display "MONO".

To cancel

Press and hold [PLAY MODE] again until "MONO" disappears.

- MONO is also canceled if the frequency is changed.
- Turn off "MONO" for normal listening.



FM allocation setting

By main unit only

This system can also receive FM broadcasts allocated in 0.1 MHz steps.

To change the step to 0.1 MHz

- 1 Press and hold [TUNER/BAND].
After a few seconds the display changes to a flashing display of the current minimum frequency.
- 2 Continue to hold down [TUNER/BAND].
 - When the minimum frequency changes, release the button. To return to the original step, repeat the above steps.
 - After changing the setting, previously preset frequency will be cleared.



Memory preset

20 FM and 15 AM stations can be preset.

Preparation

Press [TUNER/BAND] to select "FM" or "AM".



Automatic presetting

- 1 Tune to the frequency where presetting is to begin.
- 2 Press and hold [PROGRAM] to start presetting.



The tuner presets all the stations it can receive into the channels in ascending order. When finished, the last station memorized is tuned in.



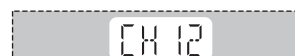
Manual presetting

- 1 Press [PLAY MODE] to select "MANUAL".
- 2 Press [◀, √/REW] or [▶, ∧/FF] to tune to the required station.
- 3 Press [PROGRAM].
- 4 Press the numeric buttons to select a channel.
For channels 10 to 20 press [≥10], then the two digits.
The station occupying a channel is erased if another station is preset to that channel.



Selecting a preset station

Press the numeric buttons to select the channel.



OR

- 1 Press [PLAY MODE] to select "PRESET".
- 2 Press [◀, √/REW] or [▶, ∧/FF] to select the channel.

Microphone mixing

The buttons described for "Microphone mixing" are mainly for the main unit unless indicated otherwise.



Enjoying the microphone mixing

You can enjoy microphone mixing from various music sources (cassette, disc, radio or other external equipments).

- 1 Firstly, lower the volume with [MIC VOL, MIN], connect the microphone.
Plug type : Ø 3.5 mm (1/8") monaural
- 2 Start playing the music source.
- 3 Adjust the volume with [VOLUME -] or [VOLUME +] and [MIC VOL, MIN] or [MIC VOL, MAX] and sing along.

Note:

- If a strange noise (howling) is emitted during use, move the microphone away from the speakers, or turn down the microphone volume.
- When you are not using the microphone, disconnect it from the microphone jack, and turn down the microphone volume level to "MIN".
- Sound adjustments can be made using microphone mixing but recording will not be affected.



Record microphone mixing

- 1 Press [▲, OPEN] and insert the cassette to be recorded. Insert with the side to be recorded facing towards you and the exposed tape facing down.
- 2 Lower the volume with [MIC VOL, MIN], then connect the microphone.
- 3 Select the music source:

When singing along with discs	Insert the desired disc (➡ page 8).
When singing along with radio	Select your desired station (➡ page 12).
When singing along from other external equipments	Connect and prepare the external equipment (➡ page 15).

- 4 Press [●, REC] and start microphone mixing.



To record your voice

- 1 Press [▲, OPEN] for DECK 2 and insert the cassette to be recorded.
- 2 Lower the volume with [MIC VOL, MIN], then connect the microphone.
- 3 Press [●, REC] to start recording.
- 4 Speak through the microphone and adjust the volume with [VOLUME -] or [VOLUME +] and [MIC VOL, MIN] or [MIC VOL, MAX].

Timer



Setting the clock

This is a 12-hour clock.

- 1 Press and hold [–CLOCK/TIMER] to select "CLOCK".
Each time you press and hold the button:



- 2 (Within 8 seconds or so)

Press [◀◀, √/REW] or [▶▶, ∧/FF] to set the time.

- 3 Press and hold [–CLOCK/TIMER] to finish setting the time.

Displaying the clock

Press and hold [–CLOCK/TIMER] once when the unit is on or in standby mode.
The time is displayed for a few seconds.

Note:

Reset the clock regularly to maintain accuracy.



Using the play or record timer

You can set the timer to come on at a certain time to wake you up (play timer) or to record from the radio or the external equipment (record timer).

Play timer and record timer cannot be used together.

Turn the unit on and set the clock.

Timer	Action
Play timer	Prepare the music source you want to listen to; cassette, disc number (1 ~ 5), radio or other external equipments, and set the volume.
Record timer	Check the cassette's erasure prevention tabs (➡ page 11), insert the cassette and tune to the radio station (➡ page 12) or select the external equipment (➡ page 15).

- 1 Press and hold [–CLOCK/TIMER] to select the timer function.
Every time you press and hold the button:

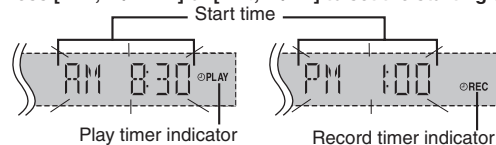


◉PLAY : to set the play timer

◉REC : to set the record timer

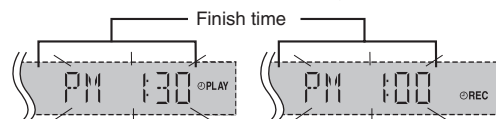
(Proceed to the next step within 8 seconds)

- 2 Press [◀◀, √/REW] or [▶▶, ∧/FF] to set the starting time.



- 3 Press and hold [–CLOCK/TIMER] to confirm.

- 4 Repeat steps 2 to 3 to set the finishing time.



(Continued on next page)

Timer (continued)

To activate the timer

5 Press and hold [⊖PLAY/REC] to turn on your desired timer.



6 Press [⊖] to turn off the unit.
The unit must be off for the timers to operate.

Other basic operations

To	Action
change the settings	Repeat steps 1 to 4 and 6 (➡ see page 13 and above).
change the source or volume	1) Press and hold [⊖PLAY/REC] to clear the timer indicator from the display. 2) Make changes to the source or volume. 3) Perform steps 5 to 6 (➡ see above).
check the settings	Press and hold [⊖CLOCK/TIMER] repeatedly to select ⊕PLAY or ⊕REC.
cancel	Press and hold [⊖PLAY/REC] to clear the timer indicators from the display.

If you use the unit after the timers are set

After using, check that the correct tape/disc are loaded before turning the unit off.

Note:

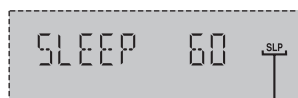
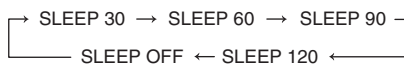
- The play timer will start at the preset time with volume increasing gradually to preset level.
- The record timer will start 30 seconds before the set time with the volume muted.
- The timer comes on at the set time everyday if the timer is on.
- The unit must be in the standby mode for the timer to function.
- If you turn the unit off and on again while a timer is functioning, the finish time setting will not be activated.
- If MUSIC PORT is selected as the source when the timer comes on, the system turns on and engages MUSIC PORT as the source. If you wish to playback or record from the portable audio equipment, just activate the equipment's play mode and increase the volume. (See the portable audio equipment's instruction manual.)



Using the sleep timer

This function enables you to turn off the unit automatically after the set time.

Press [SLEEP] to select your desired time.



Sleep timer indicator

To cancel

Press [SLEEP] to select "SLEEP OFF".

Changing the remaining time

Press [SLEEP] to show the remaining time and press [SLEEP] again to select your desired time.

Note:

- The play and sleep timer or the record and sleep timer can be used together.
- The sleep timer always has priority. Be sure not to overlap timer settings.
- The sleep timer turns off when you perform the record function.

Sound adjustment

Selecting sound effects



Preset EQ

Press [PRESET EQ] repeatedly to select your desired setting.

→ HEAVY → SOFT → CLEAR → VOCAL → FLAT (off)

Setting	Effect
HEAVY	Adds punch to rock
SOFT	For background music
CLEAR	Clarifies higher frequencies
VOCAL	Adds gloss to vocal
FLAT	No effect



Manual EQ

1 Press [MANUAL EQ] repeatedly to select your desired setting.



Setting	Effect
BASS	For lower pitch sound
MID	For middle pitch sound
TREBLE	For higher pitch sound

2 Press [◀◀, √/REW] or [▶▶, ∧/FF] to adjust the level.
OR

Press [+] or [-] on the main unit to adjust the level.

Note:

- The level of the pitch is between -3 to +3.
- The changes you make are stored and automatically recalled the next time you select "MANUAL EQ".



Enhancing the bass sound

You can enhance low-frequency sound so that heavy bass sound can be heard clearly, even if the acoustics of your room are not optimal.

To activate

Press [HARD BASS].

To cancel

Press [HARD BASS] again.

Note:

The actual effect depends on the disc.



Boosting the subwoofer



- 1 Press [ON/OFF] on the subwoofer (remote control: [SUBWOOFER]) to activate the subwoofer function.
- 2 Press [LEVEL] on the subwoofer to select your desired setting.
Each time you press the button:

→ SUB W MIN → SUB W MID → SUB W MAX →

To turn off the subwoofer function

Press [ON/OFF] on the subwoofer (remote control: [SUBWOOFER]) to select "SUB W OFF".

Note:

This function is not applicable when a headphone is connected.



Enjoying surround sound

Enable you to add natural width and depth to the stereo sound.

To activate

Press and hold [-SURROUND] to select "SURROUND ON".

To cancel

Press and hold [-SURROUND] again to select "SURROUND OFF".

Note:

- Surround sound is less discernible when listening through headphones.
- If interference in FM stereo reception increases, cancel the surround sound effect.

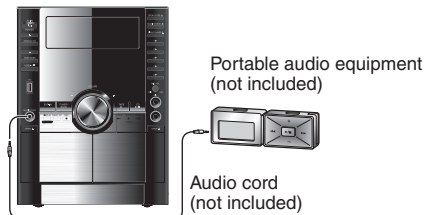
External unit

Preparation

- All peripheral components and cables are sold separately.
- Turn off all equipment and read the appropriate operating instructions.

Connecting to a portable audio equipment

This feature enables you to enjoy music from a portable audio equipment.



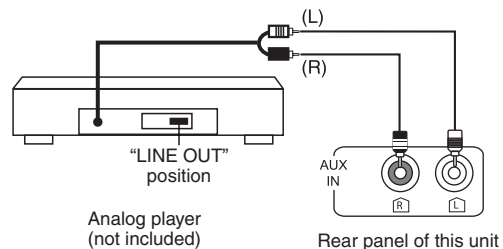
Playing or recording from a portable audio equipment

Switch off the equalizer function (if there is any) of the portable audio equipment before you plug into the MUSIC PORT jack. Otherwise, sound from the speaker may be distorted.

- 1 Plug the audio cord into the MUSIC PORT jack.
- 2 Press [EXT-IN] repeatedly until "MUSIC PORT" is displayed.
- 3 For listening : Proceed to step 4.
For recording : Press [●, REC] on the main unit to start recording.
- 4 Play the portable audio equipment.

Connecting to other external unit

You can connect to an analog player with a built-in phone equalizer.



Playing or recording from an external unit

- 1 Press [EXT-IN] repeatedly until "AUX" is displayed.
- 2 For listening : Proceed to step 3.
For recording : Press [●, REC] on the main unit to start recording.
- 3 Start playback from the external source.

Note:

- When units other than those described above are to be connected, please consult your audio dealer.
- Sound distortion may occur when you use an adaptor other than the one supplied.

Connecting and playing a USB mass storage class device

MP3

The USB connectivity enables you to connect and play MP3 tracks from USB mass storage class. Typically, USB memory devices. (Bulk only transfer)

Preparation

Before connecting any USB mass storage device to the unit, ensure that the data stored therein has been backed up.

USB enabled device
(not included)
It is not recommended
to use a USB extension
cable. The device
connected via the cable
will not be recognised by
this unit.



1 Reduce the volume and connect the USB mass storage device.

2 Press [▶/II, USB] to start play.

To	Action
pause play 	Press [▶/II, USB]. Press again to resume play.
stop play 	Press [■, CLEAR]. "RESUME" is displayed. The position is memorized. Press [▶/II, USB] to resume. Press [■, CLEAR] again to clear the position.
skip tracks 	Press [◀◀, V/REW] or [▶▶, A/FF].
skip album 	Press [ALBUM (◀ or ▶)] in the play mode. Press [ALBUM (◀ or ▶)] once and then the numeric buttons in the stop mode.

For other operating functions, they are similar as those described in "Discs" (➡ page 8 ~ 10).



Recording from a USB mass storage class device

1 Press [◀◀, V/REW] or [▶▶, A/FF] to select the desired track for recording.

2 Press [●, REC] on the main unit to start recording.

Compatible devices

Devices which are defined as USB mass storage class:

- USB devices that support bulk only transfer.
- USB devices that support USB 2.0 full speed.

Supported format

Files must have the extension ".mp3" or ".MP3".

Note:

- CBI (Control/Bulk/Interrupt) is not supported.
- A device using NTFS file system is not supported [Only FAT 12/16/32 (File Allocation Table 12/16/32) file system is supported].
- Depending on the sector size, some files may not work.
- This unit can access up to 255 albums (including blank folders) and 2500 tracks.
- The maximum number of tracks in a folder are 999 tracks.
- Only one memory card will be selected when connecting a multiport USB card reader. Typically the first memory card inserted.
- Disconnect the USB card reader from the unit when you remove the memory card. Failure to do so may cause malfunction to the device.
- Compatible audio device will be charged when in USB mode.



Avoid interfering with other Panasonic equipment

Other Panasonic audio or video equipment may start functioning when you operate the unit using the supplied remote control.

You can operate this unit in another mode by setting the remote control operating mode to "REMOTE 2".

The main unit and remote control must be set to the same mode.

1 Press and hold [EXT-IN] on the main unit. Then press [2] on the remote control until "REMOTE 2" is displayed.

2 Press and hold [ENTER] on the remote control followed by numeric button [2].

To change the mode back to "REMOTE 1", repeat the steps above by replacing [2] with [1].

Troubleshooting guide

Before requesting service, make the following checks. If you can't fix the system as described below, or if something not listed here occurs, refer to the enclosed directory to locate an Authorized Service Center convenient to you or contact your dealer.

Reference pages are shown as black circled numbers ④.

Common problems

Although the unit is in standby mode, the display lights up and changes continuously.	Turn off the demo function. ⑥ If you set the clock, demo function will be turned off automatically. ⑩
No sound. Sound stops.	Turn the volume up. Switch off the unit, determine and correct the cause, then switch the unit on. Causes include straining of the speakers through excessive volume or power and using the unit in a hot environment.
Sound is unfixed, reversed or comes from one speaker only.	Check the speaker connections. ④ ⑤
Humming heard during play.	An AC power supply cord or fluorescent light is near the cables. Keep other appliances and cords away from this unit's cables.
"ERROR" is displayed.	Incorrect operation performed. Read the instructions and try again.
"- -: -" appears on the display at standby mode.	You plugged the AC power supply cord in for the first time or there was a power failure recently. Set the time. ⑩
"F61" is displayed.	Check and correct the speaker cords connection. ④ ⑤ If this does not fix the problem, there is a power supply problem. Consult the dealer.

Listening to the radio

Noise is heard. The stereo indicator flickers or doesn't light. Sound is distorted.	Use an outdoor antenna. ⑥
A beat sound is heard.	Turn the TV off or separate it from the unit.
A low hum is heard during AM broadcast.	Separate the antenna from other cables and cords.

When there is a television set nearby

The picture on the TV disappears or stripes appear on the screen.	The location and orientation of the antenna are incorrect. If you are using an indoor antenna, change to an outdoor antenna. The TV antenna wire is too close to the unit. Separate the antenna wire of the TV set from the unit.
---	--

Using the cassette deck

Poor sound quality.	Clean the heads. ⑩
Recording is not possible.	If the erasure prevention tabs have been removed, cover the holes with adhesive tape. ⑪

Playing discs

The display is wrong or play won't start.	The disc may be upside down. ④ Wipe the disc. Replace the disc if it is scratched, warped, or non-standard. Condensation may have formed inside the unit due to a sudden change in temperature. Wait for about an hour for it to clear and try again.
The total number of tracks displayed differs each time the same disc is inserted. Unusual sound is heard.	The disc may be scratched, or its data may be defective. Replace the disc.
CD-RW cannot be read.	The disc was incompletely formatted. Use the recording equipment to fully format the disc before recording.
"VBR-" is displayed instead of the remaining play time.	The unit cannot display the remaining play time for variable bit rate (VBR) tracks.

Troubleshooting guide (continued)

Disc trays

Disc tray(s) cannot open. "CHGR ERR" is displayed.	Press [⏻/I, POWER] to release the jammed tray(s) as the unit will switch off. Switch it on again and the tray(s) will initialize to the previous tray(s) condition. If this still does not fix the problem, please consult the dealer.
--	---

Remote control

Remote control doesn't work.	Check that the batteries are inserted correctly. 6 Replace the batteries if they are worn. Change the remote control mode to match the main unit mode. 16
-------------------------------------	---

USB

No response when [●, REC] button is pressed.	Disconnect the USB device and then reconnect it back. Alternatively, turn the unit off and then back on.
The USB drive or its contents cannot be read.	The USB drive format or its contents is/are not compatible with the system. 16 The USB host function of this product may not work with some USB devices. USB devices with storage capacity of more than 8 gigabytes may not work in some instances.
Slow operation of the USB flash drive.	Large file size or high memory USB flash drive takes longer time to read.
"USB OVER CURRENT ERROR"	The USB mass storage device rating exceeds 500mA. Disconnect the USB device. Turn the unit off and then back on.
"NO PLAY"	Check the content. Only MP3 format files can be played.

Memory reset (Initialization)

When the following situations occur, refer to the instructions below to reset the memory:

- There is no response when buttons are pressed.
- You want to clear and reset the memory contents.

To reset memory

- 1 Disconnect the AC power supply cord. (Wait at least 3 minutes before proceeding to step 2)**
- 2 While pressing and holding down [⏻/I, POWER] on the main unit, reconnect the AC power supply cord.**

"-----" appears on the display.

- 3 Release [⏻/I, POWER].**

All the settings are returned to the factory preset.

You will need to reset the memory items.

Maintenance

If the surfaces are dirty

To clean this unit, wipe with a soft, dry cloth.

- Never use alcohol, paint thinner or benzene to clean this unit.
- Before using chemically treated cloth, read the instructions that came with the cloth carefully.

For a cleaner crisper sound (cassette deck)

Clean the heads regularly to assure good quality playback and recording. Use a cleaning tape (not included).

When moving the unit

- 1 Remove all discs.**
- 2 Press [⏻/I, POWER] to turn the unit off.**
- 3 Disconnect the AC power supply cord.**

Specifications

AMPLIFIER SECTION

RMS output power

Front Ch	200 W per channel (7 Ω), 1 kHz, 10% THD
Subwoofer Ch	240 W per channel (7 Ω), 100 Hz, 10% THD
Total RMS Dolby Digital mode power	880 W

FTC Output Power Stereo Mode

Front Ch (both ch driven)	190 W per channel (7Ω), 100 to 12 kHz, 10% THD
Subwoofer Ch	220 W per channel (7Ω), 40 to 100 Hz, 10% THD
Total FTC Stereo mode power	820 W

FM/AM TUNER, TERMINALS SECTION

Preset station	FM 20 stations AM 15 stations
-----------------------	----------------------------------

Frequency Modulation (FM)

Frequency range	87.9 to 107.9 MHz (200 kHz step) 87.5 to 108.0 MHz (100 kHz step)
Sensitivity	4.0 μV (IHF)
S/N 26 dB	2.2 μV
Antenna terminal(s)	75 Ω (unbalanced)

Amplitude Modulation (AM)

Frequency range	520 to 1710 kHz (10 kHz step)
-----------------	-------------------------------

Phone jack

Terminal	Stereo, 3.5 mm (1/8") jack
----------	----------------------------

MIC jack

Sensitivity	0.7 mV, 1.2 kΩ
Terminal	Mono, 3.5 mm (1/8") jack (1 system)

Music Port (Front)

Sensitivity	100 mV, 4.7 kΩ
Terminal	Stereo, 3.5 mm (1/8") jack

USB Port

USB standard	USB 2.0 full speed
Media file format support	MP3 (*.mp3)
USB device file system	FAT12, FAT16, FAT32
USB port power	500 mA (Max)

CASSETTE DECK SECTION

Track system	4 track, 2 channel
---------------------	--------------------

Heads

Record/playback	Solid permalloy head
Erase	Double gap ferrite head

Motor

	DC servo motor
--	----------------

Recording system

	AC bias 100 kHz
--	-----------------

Erase system

	AC erase 100 kHz
--	------------------

Tape speed

	4.8 cm/s (1-7/8 ips)
--	----------------------

Overall frequency response (+3 dB, -6 dB) at DECK OUT

Normal	35 Hz to 14 kHz
--------	-----------------

S/N Ratio

	50 dB (A-WTD)
--	---------------

Wow and flutter

	0.18% (WRMS)
--	--------------

Fast forward and rewind time

	Approx. 120 seconds with C-60 cassette tape
--	--

DISC SECTION

Disc played [8 cm (3") or 12 cm (5")]

- (1) CD-Audio (CD-DA)
- (2) CD-R/RW (CD-DA, MP3* formatted disc)
- (3) MP3*

*MPEG-1 Layer 3, MPEG-2 Layer 3

Pick up

Wavelength	785 nm
Laser power	CLASS 1

Audio output (Disc)

Number of channels	(FL, FR, SL, SR, SW) 4.2 ch
--------------------	-----------------------------

Audio performance (measurement at: CD out terminal)

Frequency response (CD-Audio)	4 Hz to 20 kHz
S/N ratio (CD-Audio)	95 dB
Dynamic range (CD-Audio)	93 dB
Total harmonic dist. (CD-Audio)	0.005%

SPEAKER SECTION

Front speakers (SB-PF960)

* Rating with low-cut filter equipped amplifier

Type 2 way, 2 speaker system (Bass reflex)

Speaker unit(s) Impedance 7 Ω

1. Woofer 20 cm (7⁷/₈") cone type

2. Tweeter 6 cm (2³/₈") cone type

Input power (IEC) 220 W (Max)

Output sound pressure 88 dB/W (1.0 m)

Cross over frequency 4 kHz

Frequency range 60 Hz to 24 kHz (-16 dB)

69 Hz to 23 kHz (-10 dB)

Dimensions (WxHxD) 250 x 411 x 338 mm (9⁷/₈" x 16³/₈" x 13⁵/₁₆")

Mass 5.8 kg (12.8 lb)

Surround speakers (SB-PS960)

* Rating with low-cut filter equipped amplifier

Type 2 way, 2 speakers system (Bass reflex)

Speaker unit(s) Impedance 8 Ω

1. Woofer 12 cm (4³/₄") cone type

2. Tweeter 6 cm (2³/₈") cone type

Input power (IEC) 125 W* (Max)

Output sound pressure 85 dB/W (1.0 m)

Cross over frequency 4 kHz

Frequency range 60 Hz to 26 kHz (-16 dB)

71 Hz to 23 kHz (-10 dB)

Dimensions (WxHxD) 196 x 341 x 226 mm (7³/₄" x 13⁷/₁₆" x 8¹⁵/₁₆")

Mass 2.8 kg (6.2 lb)

Subwoofer 1 (SB-WAK860)

Subwoofer 2 (SB-WAK960)

Type 1 way, 1 speaker system (Bass reflex)

Speaker unit(s) Impedance 7 Ω

1. Woofer 25 cm (10") cone type

Input power (IEC) 250 W (Max)

Output sound pressure 82 dB/W (1.0 m)

Frequency range 48 Hz to 250 Hz (-16 dB)

50 Hz to 200 Hz (-10 dB)

Dimensions (WxHxD) 320 x 411 x 330 mm (12⁵/₈" x 16³/₈" x 13")

Mass

SB-WAK860 7.4 kg (16.3 lb)

SB-WAK960 7.3 kg (16.1 lb)

GENERAL

Power supply AC 120 V, 60 Hz

Power consumption 240 W

Dimensions (WxHxD) 250 x 331.5 x 358 mm (9⁷/₈" x 13¹/₁₆" x 14¹/₈")

Mass 8.3 kg (18.3 lb)

Operating temperature range 0°C to +40°C (+32°F to +104°F)

Operating humidity range 35% to 80% RH (no condensation)

Power consumption in standby mode: 0.2 W (Approx.)

Note:

1. Specifications are subject to change without notice.
Weight and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

Limited Warranty

Panasonic Consumer Electronics Company,
Division of Panasonic Corporation of North America
One Panasonic Way Secaucus, New Jersey 07094

Panasonic Puerto Rico, Inc.
Ave. 65 de Infantería, Km. 9.5
San Gabriel Industrial Park, Carolina, Puerto Rico 00985

Panasonic Audio Products Limited Warranty

Limited Warranty Coverage

If your product does not work properly because of a defect in materials or workmanship, Panasonic Consumer Electronics Company or Panasonic Puerto Rico, Inc. (collectively referred to as "the warrantor") will, for the length of the period indicated on the chart below, which starts with the date of original purchase ("warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

Product or Part Name	Parts	Labor
Audio Products (except items listed below)	One (1) year	One (1) year
USB Reader-Writer, Personal Computer Card Adapters (in exchange for defective item)	One (1) year	Not Applicable
Accessories: Headphones, Cartridges, Microphones, Adapters	Ninety (90) days	Ninety (90) days
Rechargeable Batteries, DVD-R/-RAM Discs (in exchange for defective item)	Ten (10) days	Not Applicable
SD Memory Cards, Rechargeable Battery Packs (in exchange for defective item)	Ninety (90) days	Not Applicable

During the "Labor" warranty period there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. You must carry-in or mail-in your product during the warranty period. If non-rechargeable batteries are included, they are not warranted. This warranty only applies to products purchased and serviced in the United States or Puerto Rico. This warranty is extended only to the original purchaser of a new product which was not sold "as is". A purchase receipt or other proof of the original purchase date is required for warranty service.

Carry-In or Mail-In Service

For Carry-In or Mail-In Service in the United States call 1-800-211-PANA (1-800-211-7262) or visit Panasonic web site: <http://www.panasonic.com>
For assistance in Puerto Rico call Panasonic Puerto Rico, Inc. (787)-750-4300 or fax (787)-768-2910.

Limited Warranty Limits And Exclusions

This warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or commercial use (such as in a hotel, office, restaurant, or other business), rental use of the product, service by anyone other than a Factory Servicenter or other Authorized Servicer, or damage that is attributable to acts of God.

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. (As examples, this excludes damages for lost time, travel to and from the servicer, loss of media or images, data or other memory content. The items listed are not exclusive, but are for illustration only.) **ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.**

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the exclusions may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. If a problem with this product develops during or after the warranty period, you may contact your dealer or Servicenter. If the problem is not handled to your satisfaction, then write to the warrantor's Consumer Affairs Department at the addresses listed for the warrantor.

PARTS AND SERVICE WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY ARE YOUR RESPONSIBILITY.

Customer Services Directory

Obtain Product Information and Operating Assistance; locate your nearest Dealer or Servicenter; purchase Parts and Accessories; or make Customer Service and Literature requests by visiting our Web Site at:

<http://www.panasonic.com/consumersupport>

or, contact us via the web at:

<http://www.panasonic.com/contactinfo>

You may also contact us directly at:

1-800-211-PANA (7262),

Monday-Friday 9 am-9 pm; Saturday-Sunday 10 am-7 pm, EST.

For hearing or speech impaired TTY users, TTY: 1-877-833-8855

Accessory Purchases

Purchase Parts, Accessories and Instruction Books online for all Panasonic Products by visiting our Web Site at:

<http://www.pstc.panasonic.com>

or, send your request by E-mail to:

npcparts@us.panasonic.com

You may also contact us directly at:

1-800-332-5368 (Phone) 1-800-237-9080 (Fax Only) (Monday-Friday 9 am to 8 pm, EST.)

Panasonic Service and Technology Company

20421 84th Avenue South, Kent, WA 98032

(We Accept Visa, MasterCard, Discover Card, American Express, and Personal Checks)

For hearing or speech impaired TTY users, TTY: 1-866-605-1277

Service in Puerto Rico

Panasonic Puerto Rico, Inc.

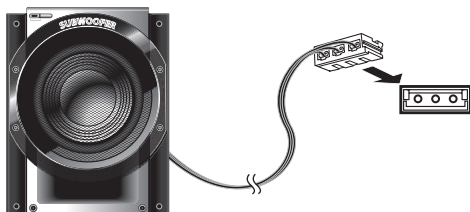
Ave. 65 de Infantería, Km. 9.5, San Gabriel Industrial Park, Carolina, Puerto Rico 00985

Phone (787)750-4300, Fax (787)768-2910

Preparativos iniciales

Conexiones

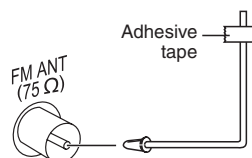
Conecte el altavoz de subgraves a la unidad principal.



(SB-WAK860)

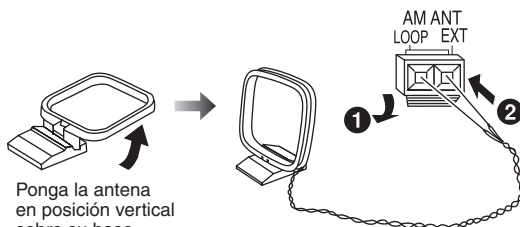
Por favor consulte "Refuerzo de subgraves" en la página 15 para más información sobre el funcionamiento de los altavoces de subgraves.

Conecte la antena interior de FM.



Fije la antena donde la recepción sea mejor.

Conecte la antena de cuadro de AM.



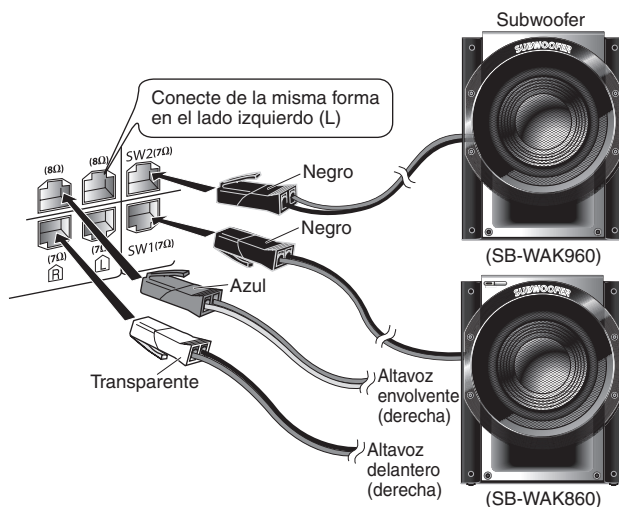
Ponga la antena en posición vertical sobre su base.

Conectar a otra unidad externa

Conecte el cable de alimentación de CA.

Al enchufe de conexión a la red

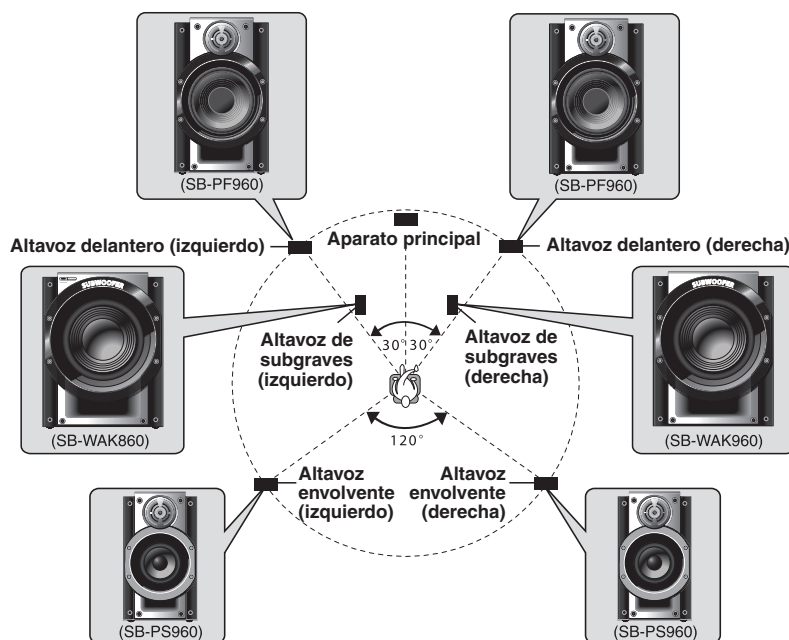
Conecte los cables de los altavoces.



ESPAÑOL

RQTX0169

Colocación de los altavoces



Altavoces delanteros

Los altavoces han sido diseñados idénticamente por lo que no es necesario orientar el canal derecho o izquierdo.

Altavoces envolvente

Colóquelos a los lados o ligeramente detrás del sitio donde se sentará, a una altura superior a la de sus oídos.

Altavoz(ces) de subgraves

Colóquelos en el suelo o sobre un estante fuerte para reducir la vibración.

Deje libres 10 cm en la parte posterior, para ventilación.

Utilice solamente los altavoces suministrados

- La utilización de otros altavoces puede dañar el aparato y la calidad del sonido se verá afectada negativamente.
- Coloque los altavoces sobre una superficie plana para evitar que se caigan. Tome las medidas de precaución adecuadas para evitar que los altavoces se caigan si no puede colocarlos sobre una superficie plana.

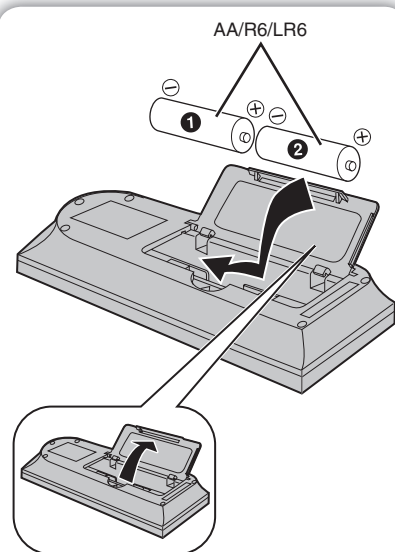
Nota:

- Mantenga sus altavoces alejados un mínimo de 10mm del sistema para disponer de una ventilación apropiada.
- No quite la red frontal de los altavoces.
- Estos altavoces no disponen de blindaje magnético. No los ponga cerca de televisores, ordenadores personales y otros dispositivos a los que afecte fácilmente el magnetismo.
- Si reproduce el sonido con niveles altos durante largos periodos de tiempo podrá dañar los altavoces y reducir su duración.
- Reduzca el volumen para evitar daños en los casos siguientes.
 - Cuando reproduzca sonido distorsionado.
 - Cuando ajuste la calidad del sonido.
 - Al encender o apagar la unidad.

Precaución

- Use los altavoces sólo con el sistema recomendado. De lo contrario, se podrían dañar el amplificador y los altavoces, y se podría ocasionar un incendio. Consulte a un técnico de servicio especializado si se ha producido algún daño o si se ha producido un cambio repentino en su funcionamiento.
- No instale estos altavoces en paredes ni techos.

Preparando el mando a distancia



■ Pilas

- Inserte los polos (+ y -) de la forma que se indica en el mando a distancia.
- Retire las pilas si no va a utilizar el mando a distancia durante un periodo de tiempo prolongado. Guárdelas en un lugar fresco y oscuro.
- Reemplace las pilas si el aparato no responde al mando a distancia a pesar de utilizarlo cerca del panel delantero.
- No utilice baterías recargables.
- Un mal manejo de pilas en el mando a distancia puede provocar fugas electrolíticas, que pueden provocar fuego.
- Si las pilas tienen fugas de electrolito, consulte a su distribuidor.
- Si el electrolito entra en contacto con cualquier parte de su cuerpo, lave la parte afectada con agua abundante.

No:

- mezcle nunca pilas viejas y nuevas.
- utilice tipos diferentes de baterías al mismo tiempo.
- calentar o exponer pilas a las llamas.
- destruir o cortocircuitar las pilas.
- intente nunca recargar pilas alcalinas o de manganeso.
- utilice nunca pilas cuya cubierta protectora esté levantada.
- ponga nunca objetos pesados encima del mando a distancia.
- derrame nunca líquidos sobre el mando a distancia.

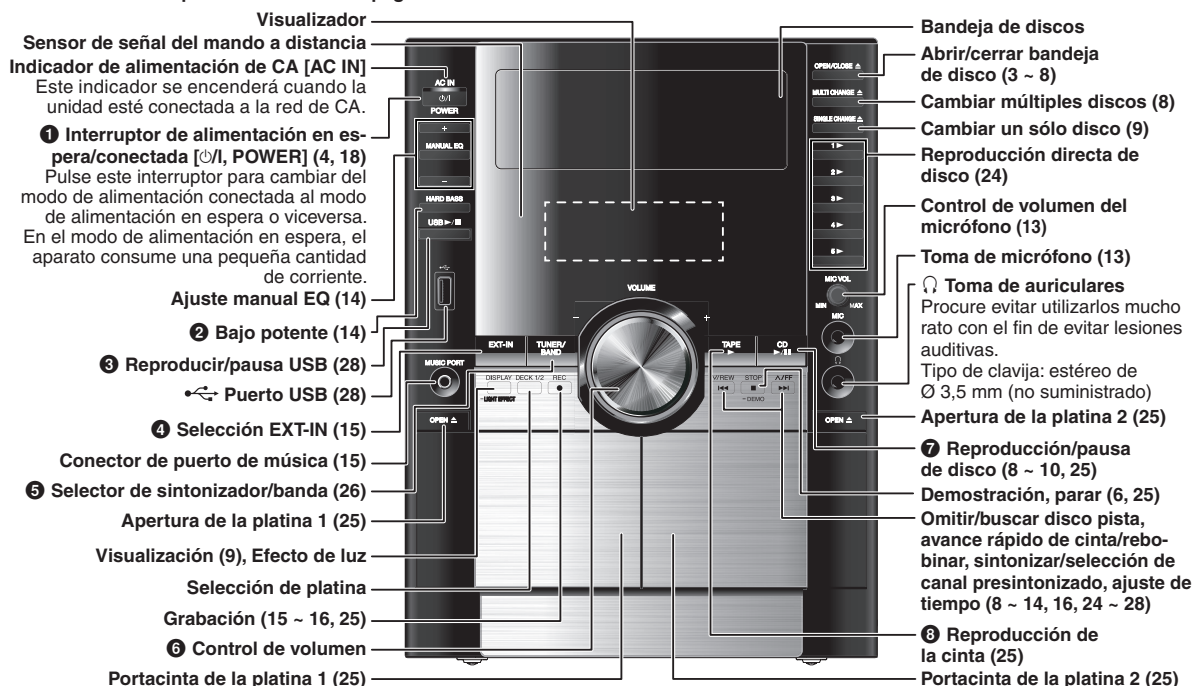
■ Utilización

Diríjalo al sensor del mando a distancia, evitando los obstáculos, desde una distancia máxima de 7 m directamente frente al aparato.
Consulte la página 7 para ver la posición del sensor de la señal del mando a distancia.

Controles

Aparato principal

Los números entre paréntesis indican la página de referencia.



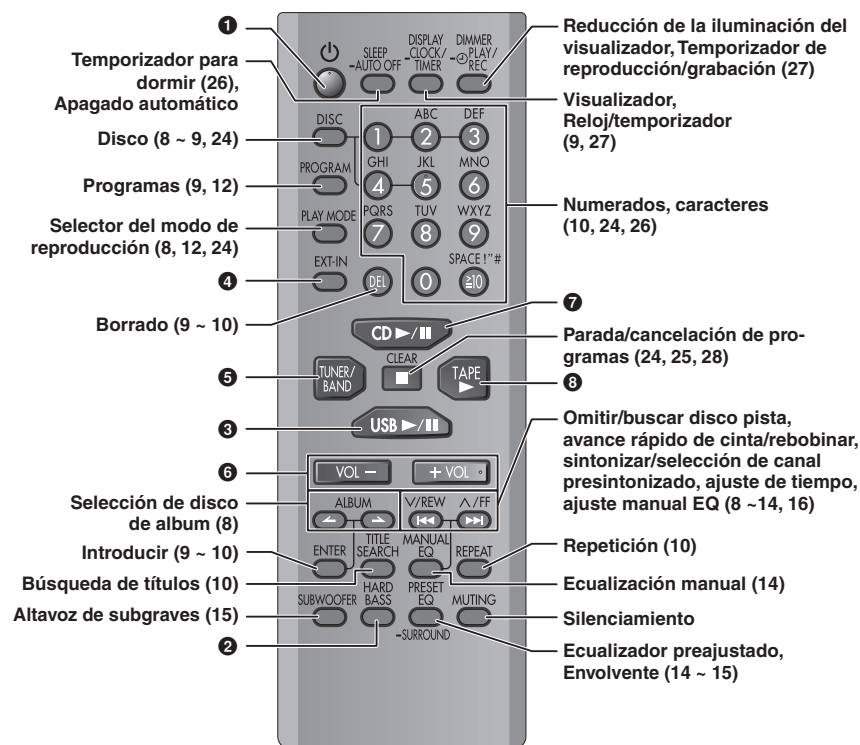
Esta función le permite tener el efecto de luz en la unidad principal durante el modo de reproducción de **disco, cinta o USB** o cuando use **MIC**.

- Mantenga pulsado [–LIGHT EFFECT] para activar esta función.
- Mantenga pulsado [–LIGHT EFFECT] de nuevo para cancelar.

ESPAÑOL

Mando a distancia

Los botones como el 1 funcionan del mismo modo que los botones del aparato principal.



SLEEP -AUTO OFF

Esta función de apagado automático le permite apagar el aparato en modo **disco, cinta o USB**, sólo después de 10 minutos sin utilizarlo.

- Mantenga pulsado [–AUTO OFF] para activar esta función.
- Mantenga pulsado [–AUTO OFF] de nuevo para cancelar.
- El ajuste se mantiene aunque el aparato esté apagado.

DIMMER -PLAY/REC

Para reducir la iluminación del visualizador.

MUTING

Para silenciar el sonido.

- Pulse el botón para activarlo.
- Vuélvalo a pulsar para cancelar o ajuste el volumen.

RQT0169



Reproducción básica

- 1 Pulse **[▲, OPEN/CLOSE]** en la unidad principal para abrir la bandeja.
El aparato se enciende, carga un disco en la bandeja actual con la etiqueta hacia arriba.
Pulse **[▲, OPEN/CLOSE]** para cerrar la bandeja.
- 2 Pulse **[▶/II, CD]** para iniciar la reproducción.
También puede pulsar **[DISC]** y a continuación **[1] ~ [5]** para seleccionar y reproducir los otros discos cargados.



Indicador del disco actual

Para	Acción
parar reproducción CLEAR 	Pulse [■, CLEAR] durante la reproducción. MP3 Visualización en el modo de parada: Ejemplo: "MP3" indica que el disco contiene archivos MP3. <div style="text-align: center;"> <p>Número total de álbumes Número total de pistas</p> </div>
interrumpir la reproducción 	Pulse [▶/II, CD] durante la reproducción. Vuelva a pulsar para reanudar la reproducción.
saltar álbum ALBUM 	MP3 Pulsar [ALBUM (◀ o ▶)] para seleccionar el álbum deseado durante la reproducción o en el modo de paro. Mostrar al seleccionarlo en modo de paro (ejemplo): <div style="text-align: center;"> <p>Álbum actual</p> <p>Número de pistas del álbum actual</p> </div>
saltar pistas REW FF 	Pulse [◀◀, √/REW] o [▶▶, ∧/FF] . • Durante la reproducción aleatoria (→ ver derecha, "Función de modo de reproducción"), no se puede saltar a pistas que ya han sido reproducidas. MP3 Durante el modo 1-ALBUM y 1-ALBUM RANDOM, el salto de pista sólo puede realizarse dentro del álbum actual.
buscar por pistas REW FF 	CD Mantenga pulsado [◀◀, √/REW] o [▶▶, ∧/FF] durante la reproducción o la pausa para buscar. • Durante la reproducción programada (→ página 9), o la reproducción aleatoria (→ ver derecha, "Función de modo de reproducción"), usted sólo puede buscar dentro de la pista.

PLAY MODE



Función de modo de reproducción



Puede escuchar discos específicos y pistas.

Preparación

Seleccione y reproduzca sus discos deseados.

Pulse **[PLAY MODE]** para seleccionar el modo deseado.

Modo	Para reproducir
1-DISC 1 DISC	un disco seleccionado.
ALL-DISC ALL DISC	todos los discos cargados en sucesión del disco seleccionado al último disco. Ejemplo: 4→5→1→2→3.
1-TRACK 1-TR	una melodía seleccionada del disco seleccionado. CD Pulse los botones numéricos para seleccionar la pista en el disco actual. La reproducción empieza desde la pista seleccionada.
1-ALBUM 1-ALB ALBUM 	MP3 Pulse [ALBUM (◀ o ▶)] para seleccionar el álbum. Pulse [◀◀, √/REW] o [▶▶, ∧/FF] , a continuación los botones numéricos para seleccionar la pista en el álbum actual. La reproducción empieza desde la pista seleccionada.
1-DISC RANDOM 1 DISC RND	un disco seleccionado aleatoriamente.
1-ALBUM RANDOM 1-ALB RND ALBUM 	MP3 todas las pistas de un álbum seleccionado aleatoriamente. Pulse [ALBUM (◀ o ▶)] para seleccionar el álbum.
ALL-DISC RANDOM ALL DISC RND	todos los discos cargados en orden aleatorio.

Cuando termine la reproducción

El modo de reproducción actual se retendrá en la memoria, aunque se apague el aparato, hasta que se cambie.

Nota:

Usted no puede utilizar el modo de programa con la "Función de modo de reproducción".

Cintas de casete – reproducción y grabación

Los botones descritos para “Cintas de casete – reproducción y grabación” son principalmente para la unidad a no ser que se indique lo contrario.

TAPE

OPEN

Reproducción básica

Puede utilizar la platina 1 (DECK 1) o platina 2 (DECK 2) para reproducir cintas.
Use cintas de posición normal.
Las cintas de posición alta y de posición metal pueden reproducirse, pero el aparato no podrá reproducir perfectamente las características de estas cintas.

- Pulse [▶, TAPE].**
El aparato se enciende.
Si ya se introdujo una cinta de casete, la reproducción empezará automáticamente (Reproducción de un toque).
- Pulse [▲, OPEN] para la platina 1 (DECK 1) o [▲, OPEN] para la platina 2 (DECK 2) e insertar la cinta.**
Inserte con el lado que va a reproducirse hacia usted y con la cinta expuesta hacia abajo. Cierre el portacasete con la mano.
- Pulse [▶, TAPE] para iniciar la reproducción.**

Para	Acción
<div>detener la reproducción</div> <div>STOP</div> <div>~ DEMO</div>	Pulse [■, STOP].
<div>avanzar rápidamente o rebobinar</div> <div> <div>V/REW</div> <div> <div>◀◀</div> <div>▶▶</div> </div> </div> <div>DECK 1/2</div> <div> <div>◻</div> </div>	Pulse [◀◀, V/REW] o [▶▶, ^/FF].
<div>seleccionar entre las platinas cargadas</div> <div>DECK 1/2</div> <div>◻</div>	Pulse [DECK 1/2] (mando a distancia: [PLAY MODE]).

Nota:

- La reproducción de la cinta se interrumpe momentáneamente si usted abre la otra platina.
- Las cintas de más de 100 minutos son finas y pueden romperse o atascarse en el mecanismo.
- Las cintas flojas pueden quedar atrapadas en el mecanismo, por lo que deberán tensarse antes de ser reproducidas.
- Las cintas sin fin pueden quedar atrapadas en las partes móviles de la platina si no se utilizan correctamente.

REC

Grabación

Selección de cintas para la grabación

Use cintas de posición normal.
Pueden usarse cintas de posición alta y de metal, pero el aparato no las grabará ni las borrará correctamente.

Preparación

Rebobine la cinta original para que la grabación pueda comenzar de inmediato.

- Pulse [▲, OPEN] para la platina 2 (DECK 2) e inserte la cinta que hay que grabar.**
Inserte con el lado que va a grabar hacia usted y con la cinta expuesta hacia abajo.
- Selecione la fuente que va a grabar.**
Grabación de la radio:
Sintonice la emisora (⇒ página 12).
Grabación de disco:
① Inserte el(los) disco(s) que desee grabar.
Pulse [▶/II, CD] y luego [■, STOP].
② Prepare el modo de grabación del disco deseado.

Para	Acción
grabar las pistas programadas	<div>CD</div> <p>Ejecutar los pasos de 2 a 4 en “Reproducción programada” (⇒ página 9).</p> <div>MP3</div> <p>Ejecutar los pasos de 3 a 6 en “Reproducción programada” (⇒ página 9).</p>

Mando a distancia solamente

- grabar discos/pistas específicas
- 1) Pulse [DISC] y luego [1] ~ [5] para seleccionar el disco.
Asegúrese de que el disco esté parado.
 - 2) Pulse [PLAY MODE] para seleccionar el modo deseado (⇒ página 8).
 - 3)

MP3

Para el modo 1-ALBUM y el modo 1-TRACK:
Pulse [ALBUM (◀ o ▶)] para seleccionar el álbum.

CD

MP3

Para el modo 1-TRACK:
Pulse [◀◀, V/REW] o [▶▶, ^/FF] para seleccionar la pista.

Grabación de cinta a cinta:

- ① Pulse [▶, TAPE] y luego [■, STOP].
- ② Pulse [▲, OPEN] para la platina 1 (DECK 1) e inserte el casete a grabar.

- Pulse [●, REC] para iniciar la grabación.**

Otras operaciones básicas

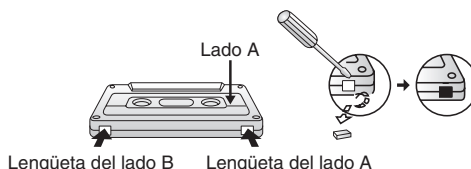
Para	Acción
<div>detener la grabación</div> <div>STOP</div> <div>~ DEMO</div>	Pulse [■, STOP].
<div>grabar en la otra cara de la cinta</div> <div>REC</div> <div>◻</div>	Dé vuelta a la cinta de casete y pulse [●, REC].
<div>borrar un sonido grabado</div>	<ol style="list-style-type: none"> 1) Pulse [▶, TAPE] y luego [■, STOP]. 2) Inserte la cinta grabada en la platina 2 (DECK 2). Asegúrese de que no haya una cinta en la platina 1 (DECK 1). 3) Pulse [●, REC].

Nota:

- Los cambios en el volumen o en los ajustes de volumen no afectan a la grabación.
- Utilizar la platina 2 (DECK 2) para la grabación.
- No podrá abrir la platina 1 (DECK 1) durante la grabación.
- No podrá avanzar rápidamente ni rebobinar en una platina mientras graba con la otra.

Protección contra borrado

La ilustración muestra cómo retirar las lengüetas para evitar el borrado por regeneración. Para volver a grabar en la cinta, tape el agujero como se muestra.





Sintonización manual

- 1 Pulse [TUNER/BAND] para seleccionar "FM" o "AM".
- 2 Pulse [PLAY MODE] para seleccionar "MANUAL".
- 3 Pulse [◀◀, √/REW] o [▶▶, ∧/FF] para seleccionar la frecuencia de la emisora requerida.
Se visualizará "ST" cuando esté siendo recibida una emisora estéreo por FM.

Para sintonizar automáticamente

Mantenga pulsado [◀◀, √/REW] o [▶▶, ∧/FF] hasta que la frecuencia empiece a cambiar rápidamente. El aparato inicia la sintonización automática y se detendrá cuando encuentre una emisora.

- La sintonización automática tal vez se interrumpa cuando las interferencias sean excesivas.
- Para cancelar la sintonización automática, pulse una vez más [◀◀, √/REW] o [▶▶, ∧/FF].



Para mejorar la calidad del sonido de FM

Mantenga pulsado [PLAY MODE] para visualizar "MONO".

Para cancelar

Mantenga pulsado [PLAY MODE] otra vez hasta que "MONO" desaparezca.

- MONO también se cancelará si se cambia la frecuencia.
- Deje "MONO" apagado para la escucha normal.



Ajuste de asignación de AM

Aparato principal solamente

Este sistema también puede recibir emisiones de AM asignadas en pasos de 10 kHz.

Para cambiar el paso de a 0.1 MHz

- 1 Mantenga pulsado [TUNER/BAND].
Después de unos segundos, la visualización cambiará a una visualización parpadeante de la frecuencia mínima actual.
- 2 Continúe pulsando [TUNER/BAND].
 - Si la frecuencia mínima cambia, suelte el botón. Para volver al paso original, repita los pasos anteriores.
 - Después de cambiar el ajuste de "asignación", las frecuencias previamente preajustadas en la memoria se borrarán.



Grabación de emisoras en memoria

Se pueden presintonizar 20 emisoras FM y 15 AM.

Preparación

Pulse [TUNER/BAND] para seleccionar "FM" o "AM".



Presintonización automática

- 1 Sintonice la frecuencia desde la que quiere comenzar a presintonizar.
- 2 Mantenga pulsado [PROGRAM] para iniciar la presintonización.



El sintonizador presintonizará en los canales, en orden ascendente, todas las emisoras que pueda recibir. Cuando termine, se sintonizará la última emisora memorizada.



Presintonización manual

- 1 Pulse [PLAY MODE] para seleccionar "MANUAL".
- 2 Pulse [◀◀, √/REW] o [▶▶, ∧/FF] para seleccionar la emisora deseada.
- 3 Pulse [PROGRAM].
- 4 Pulse los botones numéricos para seleccionar el canal.
Para los canales 10 a 20 pulse [≥10] y luego los dos dígitos. La emisora que ocupa un canal se borrará si se presintoniza otra emisora en ese canal.



Selección de una emisora presintonizada

Pulse los botones numéricos para seleccionar el canal.



O

- 1 Pulse [PLAY MODE] para seleccionar "PRESET".
- 2 Pulse [◀◀, √/REW] o [▶▶, ∧/FF] para seleccionar el canal.

Temporizador

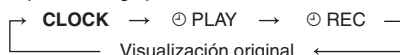


Puesta en hora

Éste es un reloj de sistema de 24 horas.

- 1 Mantenga pulsado [CLOCK/TIMER] para seleccionar "CLOCK".

Cada vez que mantenga pulsado el botón:



- 2 (Antes de que pasen unos 8 segundos)

Pulse [◀, √/REW] o [▶, ∧/FF] para ajustar la hora.

- 3 Mantenga pulsado [CLOCK/TIMER] para terminar de poner la hora.

Visualización del reloj

Mantenga pulsado una vez [CLOCK/TIMER] cuando el aparato esté encendido o en el modo de espera.

La hora se muestra durante unos pocos segundos.

Nota:

Vuelva a poner en hora el reloj con frecuencia para mantener su precisión.



Utilización del temporizador de reproducción/grabación

Puede ajustar el temporizador para que se encienda a una hora determinada para despertarle (temporizador de reproducción) o para grabar la radio o equipo externo (temporizador de grabación). El temporizador de reproducción no puede utilizarse en combinación con el temporizador de grabación.

Encienda el aparato y ponga en hora el reloj.

Temporizador	Acción
Temporizador de reproducción	Prepare la fuente de música que desea escuchar; casete, número de disco (1~5), radio u otros equipos externos y ajuste el volumen.
Temporizador de grabación	Compruebe las lengüetas de prevención de borrado del casete (➡ página 11), inserte el casete y sintonice la emisora de radio (➡ página 12) o seleccione el equipo externo (➡ página 15).

- 1 Mantenga pulsado [CLOCK/TIMER] para seleccionar el temporizador deseado.

Cada vez que mantenga pulsado el botón:

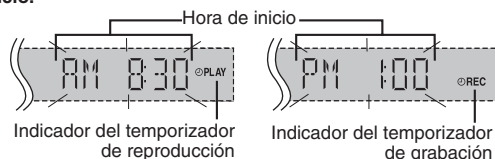


◻PLAY : para ajustar el temporizador de reproducción

◻REC : para ajustar el temporizador de grabación

(Vaya al paso siguiente **antes de que pasen 8 segundos**)

- 2 Pulse [◀, √/REW] o [▶, ∧/FF] para ajustar la hora de inicio.



- 3 Mantenga pulsado [CLOCK/TIMER] para confirmar.

- 4 Repita los pasos 2 a 3 para ajustar la hora de finalización.



Para activar el temporizador

- 5 Mantenga pulsado [◻PLAY/REC] para encender el temporizador deseado.



- 6 Pulse [◻] para apagar el aparato.

El aparato debe estar apagado para que funcionen los temporizadores.

Otras operaciones básicas

Para	Acción
cambiar la configuración	Repita los pasos 1 a 4 y 6 (➡ mirar la página 13 y arriba).
cambiar la fuente o el volumen	1) Mantenga pulsado [◻PLAY/REC] para cancelar el temporizador indicador del visualizador. 2) Cambie la fuente o el volumen. 3) Ejecute los pasos 5 a 6 (➡ ver arriba).
compruebe la configuración	Mantenga pulsado [CLOCK/TIMER] repetidamente seleccione ◻PLAY o ◻REC.
cancelar	Mantenga pulsado [◻PLAY/REC] para cancelar los indicadores del temporizador del visualizador.

Si utiliza el aparato después de haber ajustado los temporizadores

Tras la utilización del aparato, compruebe que la cinta/disco correcto esté introducido antes de apagar el aparato.

Nota:

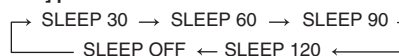
- El temporizador de reproducción se pondrá en marcha a la hora programada y el volumen aumentará gradualmente hasta el nivel seleccionado.
- El temporizador de grabación de registro comenzará 30 segundos antes del tiempo del sistema con el volumen silenciado.
- Si el temporizador está activo, se encenderá todos los días a la hora fijada.
- El aparato debe estar en modo de espera para que el temporizador funcione.
- Si apaga el aparato y lo vuelve a encender mientras esté funcionando un temporizador, no se activará el ajuste de tiempo de finalización.
- Si se selecciona el puerto música (MUSIC PORT) como fuente cuando el temporizador avance, el sistema se enciende y utiliza el puerto de música (MUSIC PORT) como fuente. Si desea reproducir o grabar desde el equipo reproductor portátil de audio, solo ha de activar el modo reproducir del equipo reproductor y aumentar el volumen. (Ver el manual de instrucciones del reproductor portátil de audio.)



Utilización del temporizador para dormir

Esta función le permite apagar el aparato automáticamente después de la hora fijada.

Pulse [SLEEP] para seleccionar la hora deseada.



Indicador del temporizador de dormir

Para cancelar

Pulse [SLEEP] para seleccionar "SLEEP OFF".

Modificación del tiempo restante

Vuelva a pulsar [SLEEP] para mostrar la hora y luego pulse [SLEEP] para seleccionar el tiempo deseado.

Nota:

- El temporizador para reproducción y para dormir o el temporizador para grabación y para dormir pueden usarse al mismo tiempo.
- El temporizador para dormir siempre tiene prioridad. Asegúrese de no superponer los ajustes de temporizador.
- El temporizador de dormir se desconecta cuando ejecuta la función de grabar.

Equipo externo

Conexión y reproducción un dispositivo de tipo de almacenamiento masivo USB

MP3

La conectividad USB le permite conectar y reproducir pistas MP3 de dispositivos de tipo de almacenamiento masivo USB. Normalmente, dispositivos de memoria USB. (transferencia solo en masa)

Preparación

Antes de conectar cualquier dispositivo de almacenamiento masivo USB a la unidad, asegúrese de que se ha hecho una copia de seguridad de los datos almacenados.

Se recomienda no utilizar un alargador USB. El dispositivo USB no es reconocido por esta unidad.

Dispositivo USB permitido (no suministrado)
Se recomienda no utilizar un alargador USB. El dispositivo conectado a través del cable no será reconocido por esta unidad.



1 Reduzca el volumen y conecte el dispositivo de almacenamiento masivo USB.

2 Pulse [▶/II, USB] para iniciar la reproducción.

Para	Acción
interrumpir la reproducción	Pulse [▶/II, USB]. Vuelva a pulsar para reanudar la reproducción.
parar reproducción	Pulse [■, CLEAR]. Se muestra "RESUME". Se memorizará la posición. Pulse [▶/II, USB] para reanudar. Pulse [■, CLEAR] de nuevo para borrar la posición.
saltar pistas	Pulse [◀◀, √/REW] o [▶▶, ∧/FF].
saltar álbum	Pulse [ALBUM (◀ o ▶)] en el modo reproducción. Pulse [ALBUM (◀ o ▶)] una vez y a continuación los botones numéricos en el modo paro.

Para otras funciones de operación, son similares a aquellos descritos en "Discos" (⇒ página 8 ~ 10).



Grabación desde un dispositivo de tipo de almacenamiento masivo USB

1 Pulse [◀◀, √/REW] o [▶▶, ∧/FF] para seleccionar la pista que desea grabar.

2 Pulse [●, REC] en la unidad principal para iniciar la grabación.

Dispositivos compatibles

Dispositivos definidos como tipo de almacenamiento masivo USB:

- Dispositivos USB que soportan sólo transferencia en masa.
- Dispositivos USB que soportan velocidad total USB 2.0.

Formatos admitidos

Los archivos han de tener la extensión ".mp3" o ".MP3".

Nota:

- CBI (en inglés, Control/Bulk/Interrupt) no es soportado.
- Un dispositivo que utilice el sistema de archivos NTFS no es admitido. [Sólo los archivos de sistema FAT 12/16/32 (Cuadro de asignación de archivo 12/16/32) son soportados].
- Dependiendo del tamaño del sector, algunos archivos no funcionarán.
- Esta unidad puede acceder hasta en 255 (incluidas carpetas vacías) álbumes y 2500 pistas.
- El número máximo de pistas en una carpeta son 999.



Combiando la unidad principal y el mando a distancia

El mando a distancia y la unidad principal vienen con el preajuste de fábrica en el modo "REMOTE 1".

Si su mando a distancia afecta a otro equipo durante su funcionamiento, puede cambiar para que funcione en el modo "REMOTE 2".

Para cambiar al modo "REMOTE 2"

1 Mientras mantiene pulsado [EXT-IN] en la principal unidad Mantenga pulsado [2] hasta que aparezca "REMOTE 2" en la pantalla de la unidad principal.

2 Mantenga pulsado [ENTER] y [2] durante por lo menos 2 segundos.
La unidad principal y el mando a distancia están ajustados ahora para funcionar en modo "REMOTE 2".

Para volver al modo "REMOTE 1"

Realice los pasos 1 y 2 de arriba, pero use [1] en vez de [2] para ambos pasos. ("REMOTE 1" aparece en la unidad principal durante el paso 1.)

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